CITY OF FRESNO EMPLOYEES RETIREMENT SYSTEM ANNUAL ACTUARIAL VALUATION June 30, 2005

June 30, 2005 Actuarial Valuation

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October 20, 2005

Board of Retirement Mr. Stanley McDivitt City of Fresno Employees Retirement System 2828 Fresno Street, Room 201 Fresno, CA 93721-1327

Members of the Board and Stan:

Results of the Annual <u>Actuarial Valuation as of June 30, 2005</u> of City of Fresno Employees Retirement System are summarized. The valuation is intended to provide a measure of the funding status of the retirement system. This valuation also forms the basis for the contribution rates for the year beginning July 1, 2006, <u>subject</u> to updating the Surplus Offset one year after the initial calculation. Please refer to Table 4 on page 16.

	2005 Valuation	2004 Valuation
1) Employer Normal Cost	10.51%	10.42%
2) Surplus Offset	8.95%	8.34%
3) Prepaid Contribution	1.56%	2.08%
	EQUALS	
Net Contribution: (1) - (2) - (3)	0.00%	0.00%
Funded Ratio	139.8%	133.8%

The member statistical data on which the valuation was based was furnished by staff, together with pertinent data on financial operations. Data was reviewed for reasonableness, but was not audited by the actuary. There was an overall actuarial gain of \$32.9 million, which reflects 5.9% of related actuarial accrued liabilities as of June 30, 2004.

The cooperation of staff in furnishing materials requested for this valuation is deeply acknowledged with appreciation.

Respectfully submitted,

Rich Roeder

GABRIEL, ROEDER, SMITH & COMPANY

Rick A. Roeder, E.A., F.S.A., M.A.A.A.

Jay D. Hirsch, E.A., F.S.A.

Jago bersie



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October 20, 2005

Board of Retirement City of Fresno Employees Retirement System 2828 Fresno Street, Room 201 Fresno, CA 93721-1327

Dear Members of the Board:

We are pleased to present the actuarial valuation for the City of Fresno Employees Retirement System prepared as of June 30, 2005 by Gabriel, Roeder, Smith and Company. The report includes:

- 1. A determination of the City normal contribution rates under the current actuarial methods and assumptions;
- 2. A determination of the employee contribution rates under the current actuarial methods and assumptions; and
- 3. The distribution of actuarial surplus.

This report conforms with the requirements of the governing State and local statutes, accounting rules, and generally accepted actuarial principles and practices.

The undersigned member of the American Academy of Actuaries and an ERISA Enrolled Actuary meets the Qualification Standards of the American Academy of Actuaries to render this actuarial opinion.

Sincerely,

Rick Roeder, E.A., F.S.A., M.A.A.A.

Rich Roeder

City of Fresno Employees Retirement System **Summary of Significant Valuation Results**

	June 30, 2005	<u>June 30, 2004</u>	Percent Change
I. Total Membership			
A. Active Members	2,061	2,037	1.2%
B. DROP members	225	223	0.9%
C. Pensioners	1,202	1,161	3.5%
D. Vested Deferreds	<u>127</u>	<u>113</u>	12.4%
E. Total	3,615	3,534	2.3%
II. Valuation Compensation at June 30			
A. Total Annual Payroll (including DROP)	\$102,557,676	\$99,744,943	2.8%
B. Average Annual Compensation	\$44,863	\$44,135	1.6%
III. Benefits to Current Pensioners and Beneficiari	es		
A. Total Annual Benefits	\$23,571,732	\$22,550,796	4.5%
B. Average Monthly Benefit Amount	\$1,634	\$1,619	0.9%
IV. System Assets (Actuarial Value)	\$790,857,722	\$741,766,367	6.6%
V. Total System Liabilities	\$565,549,812	\$554,366,149	2.0%
VI. Prefunded Actuarial Accrued Liability IV - V	\$225,307,910	\$187,400,218	20.2%
VII. Budget Items	FY 2006-2007	FY 2005-2006	
1. Normal Cost as a Percent of Pay	10.51%	10.42%	0.9%
2. Surplus Offset	8.95%	8.34%	7.3%
3. Prepaid Contribution	1.56%	2.08%	(25.0)%
4. Total Contribution ¹	0.00%	0.00%	0.0%
VIII. Funded Ratio (Based on Actuarial Value	140%	134%	4.5%
of Assets)			
IX. Funded Ratio (Based on Market Value of	149%	141%	5.7%
Assets Net of Excludable Reserves)			

¹ Percent is inclusive of DROP payroll

Comments & Recommendations

June 30, 2005

COMMENT A: Again, there is no required contribution to the System for the 2006-07 fiscal year. The City normal cost rate was virtually unchanged from last year -- 10.51%. We project that it will be necessary to use some of the prepayment account to reduce the fiscal 06-07 contribution to zero. Bear in mind that the 8.95% "surplus" credit against the normal cost is merely a projection. System practice has been to finalize the Surplus Offset rate as part of the subsequent valuation.

COMMENT B: There was an increase in the actuarial funded ratio from 134% to 140% due to significant actuarial gains of \$32.9 million dollars. Principal components of the actuarial gain:

- 1) The actuarial rate of return was 9.84% -- well in excess of the 8.25% assumption. The actuarial rate of return smoothes unexpected returns over a five-year period.
- 2) Average pays only increased by 1.7% -- significantly less than the System's 4.25% inflation assumption.
- 3) There was a relatively low COLA adjustment of 1.6%.

The funded ratio, using market value of assets, increased from 141% to 149%.

COMMENT C: The PRSB benefit increased in this valuation from \$115.94 to \$184.21. We have two observations. The number count provided by staff, 1,163, is slightly less than the 1,202 members we are showing as currently being in pay status. We presume that the difference may be due to Alternate Payees who are receiving payment due to a domestic relations order. Also, staff has indicated that the monthly benefit of \$711 is unchanged from last year's valuation.

COMMENT D: In our calculations, we have assumed that 8.25% interest would be credited to the Prepaid Contribution Reserve. We have not assumed similar treatment in the projection of the City Surplus Reserve Account.

COMMENT E: We are valuing the same benefits as in the 2004 valuation.

FINANCIAL PRINCIPLES AND OPERATIONAL TECHNIQUES

Financial Principles and Operational Techniques

<u>Promises Made, and To Be Paid For.</u> As each year is completed, the Retirement System in effect hands an "IOU" to each member then acquiring a year of service credit – the "IOU" says: "City of Fresno Employees Retirement System owes you one year's worth of retirement benefits, payments in cash commencing when you qualify for retirement."

The related key financial questions are:

Which generation of taxpayers contributes the money to cover the IOU?

The present taxpayers, who receive the benefit of the member's present year of service?

Or the future taxpayers, who happen to be in City of Fresno at the time the IOU becomes a cash demand, years and decades later?

The principle of level percent of payroll financing intends that this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, the employer contribution rate will remain approximately level from generation to generation – our children and our grandchildren will contribute the same percents of active payroll we contribute now.

(There are systems which have a design for deferring contributions to future taxpayers, lured by a lower contribution rate now and putting aside the consequence that the contribution rate must then relentlessly grow much greater over decades of time.)

An inevitable by-product of the level-cost design is the accumulation of reserve assets, for decades, and income produced when the assets are invested. <u>Invested assets are a by-product and not the objective</u>. <u>Investment income</u> becomes, in effect, the 3^{rd} contributor for benefits to employees, and is interlocked with the contribution amounts required from employees and employer.

(Concluded on next page)

Financial Principles and Operational Techniques

(Concluded)

Translated to actuarial terminology, this level-cost objective means that the contribution rates must total at least the following:

Current Cost (the cost of members' service being rendered this year) . . .

plus...

Interest on Prefunded Accrued Liabilities (Prefunded accrued liabilities are the difference between (i) liabilities for service already rendered and (ii) the accrued assets of the plan).

<u>Computing Contributions To Support System Benefits</u>. From a given schedule of benefits and from the employee data and asset data furnished, the actuary determines the contribution rates to support the benefits, by means of <u>an actuarial valuation and a funding method</u>.

An actuarial valuation has a number of ingredients such as: the rate of investment return which plan assets will earn; rates of withdrawal of active members who leave covered employment; rates of mortality; rates of disability; rates of pay increases; and the assumed age or ages at actual retirement. In an actuarial valuation assumptions must be made as to what the above rates will be, for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom behind the various financial assumptions or the skill of the actuary and the millions of calculations made. The future can be predicted with considerable but not complete precision, except for <u>inflation which defies reliable prediction</u>.

The System copes with these continually changing differences by having annual actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continual adjustments in the computed employer contribution rates.

THE ACTUARIAL VALUATION PROCESS

The financing diagram on the following page shows the relationship between the two fundamentally different philosophies of paying for retirement benefits: the method where contributions match cash benefit payments (or barely exceed cash benefit payments, as in the Federal Social Security program) which is an <u>increasing contribution method</u>; and the <u>level contribution method</u> which equalizes contributions between the generations.

The <u>actuarial valuation</u> is the mathematical process by which the level contribution rate is determined. The flow of activity constituting the valuation may be summarized as follows:

A. Covered people data, furnished by the System including:

Retired lives now receiving benefits

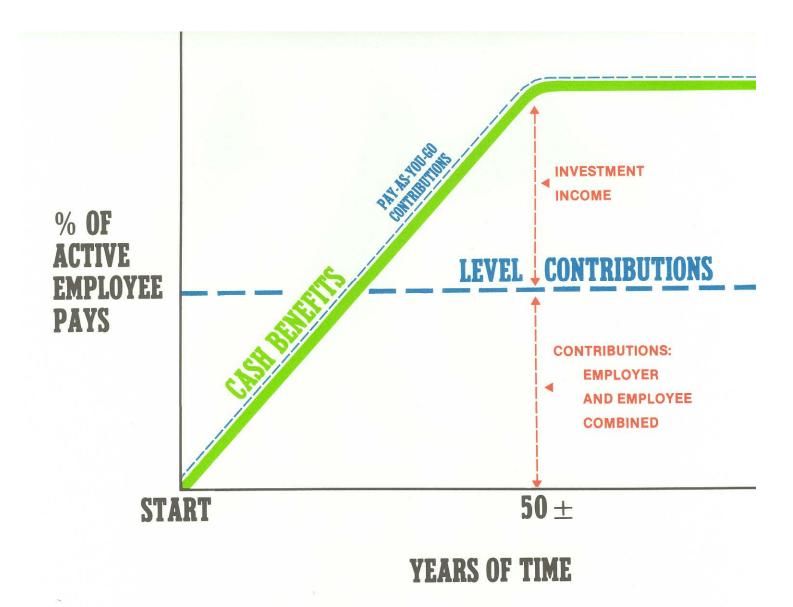
Former employees with vested benefits not yet payable

Active employees

- B. + Asset data (cash & investments), furnished by the System
- C. + <u>Assumptions concerning future experience in various risk areas</u>, which are established by the Board after consulting with the actuary
- D. + <u>The funding method</u> for employer contributions (the long-term, planned pattern for employer contributions)
- E. + Mathematically combining the assumptions, the funding method, and the data
- F. = Determination of:

Plan Financial Position and/or

Employer's New Contribution Rate



CASH BENEFITS LINE. This relentlessly increasing line is the fundamental reality of retirement plan financing. It happens each time a new benefit is added for future retirements (and happens regardless of the design for contributing for benefits).

LEVEL CONTRIBUTION LINE. Determining the level contribution line requires detailed assumptions concerning a variety of experiences in future decades, including:

Economic Risk Areas

Rates of investment return

Rates of pay increase

Changes in active member group size

Non-Economic Risk Areas

Ages at actual retirement

Rates of mortality

Rates of withdrawal of active members (turnover)

Rates of disability

VALUATION RESULTS

FUNDING OBJECTIVE

The funding objective of the Retirement System is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year to year and will not have to be increased for future generations of citizens.

CONTRIBUTION RATES

The System is supported by member contributions, employer contributions, and investment income from Fund assets.

Contributions which satisfy the funding objective are determined by the annual actuarial valuation and are intended to:

- 1. cover the actuarial present value of benefits allocated to the current year by the actuarial cost method (the normal cost); and
- 2. finance over a period of future years the actuarial present value of benefits not covered by valuation assets and anticipated future normal costs.

Computed contributions for the fiscal year beginning July 1, 2005 are shown on the following pages.

Computed Contribution Rates

(Expressed as Percents of Active Payroll)

Valuation Date	<u>2004</u>	<u>2005</u>
Fiscal Year End	2006	2007
1) Normal Cost	10.42%	10.51%
2) Surplus Offset	8.34%	8.95%
3) Prepaid Contribution	2.08%	1.56%
Total City Contribution: (1) - (2) - (3)	0.00%	0.00%
Funded Ratio	133.8%	139.8%

Ongoing Prefunded Actuarial Accrued Liabilities (PAAL) are a byproduct of actuarial gains and losses, as well as benefit, assumption and methodology changes. Each valuation generates an actuarial gain (loss) for each group valued. Currently, the excess of the actuarial value of assets over actuarial value of liabilities is the catalyst for a City contribution offset via the allocation of distributed surplus. 15-year amortization is used as part of that calculation.

Computed Contribution Rates

June 30, 2005

(Expressed as Percents of Active Payroll)

Elements of Normal Cost

Normal Retirement	14.00%
Vested Deferred Retirement	1.75
Death-In-Service ¹	0.29
Disability ¹	1.01
Contribution Refunds	0.72
Total Normal Cost	17.77%
Less	
Employee Contributions	7.26%
Employee Contributions Equals	7.26%

These figures could be viewed as overstated, and Normal Retirement figures understated, since, in many cases, an active member, who dies or becomes disabled will have significant service credit accrued and may be eligible for service retirement at time of disability or death benefit grant.

Member Contributions

Please refer to Appendix A for a detailed list of these rates.

(Percents of Pay)

All Active Members

<u>2005</u> <u>2004</u>

Weighted employee contribution rate 7.26% 7.24 %

City of Fresno Employees Retirement System Prefunded Actuarial Accrued Liability

June 30, 2005

Derivation of Experience Gain (Loss)

The actuarial gains or losses realized in the operation of the System provide an experience test. Gains and losses are expected to cancel each other over a period of years and sizable year-to-year fluctuations are common.

(1) PAAL* at beginning of year	\$187,400,218
(2) City Contribution Offset	10,539,966
(3) Employee COLA Contribution Offset	3,145,806
(4) Interest Accrual: [(1) * .0825 - [(2) + (3)] * .04125)]	14,895,980
(5) Reduction in City Surplus Reserve	3,786,000
(6) Expected PAAL at the end of year (1) - (2) - (3) + (4) + (5)	192,396,426
(7) Actual End of Year PAAL	225,307,910
(8) (Gain)/Loss	\$32,911,484
(9) (Gain)/Loss as percentage actuarial accrued liabilities at beginning of year	5.9%

^{*} Prefunded actuarial accrued liability

Gain/Loss on Prefunded Accrued Liability

Components of Actuarial Gain/(Loss) for the Year Ending June 30, 2005

Estimated Gain/(Loss) attributed to pay increases	\$5,170,726
Gain/(Loss) due to lower COLA increase than assumed	\$8,924,717
Estimated Gain/(Loss) attributed to employee turnover, active life mortality, retirement incidence and miscellaneous factors	(\$2,602,630)
Retiree Mortality and related data Gain/(Loss)	\$9,816,331
Estimated Gain/(Loss) attributed to investment experience	\$11,602,340
Total Estimated Experience Gain/(Loss)	\$32,911,484
Prefunded Actuarial Accrued Liability	
Actuarial Value of Assets	\$790,857,722
LESS	
Actuarial Value of Liabilities	\$565,549,812
EQUALS	
Prefunded Actuarial Accrued Liability	\$225,307,910



Funding Progress Indicators

June 30, 2005

There is no single all-encompassing indicator which measures a retirement system's funding progress and current funded status. A traditional measure has been the relationship of valuation assets to Prefunded Actuarial Accrued Liability – a measure that is influenced by the choice of actuarial cost method.

We believe a better understanding of funding progress and status can be achieved using the following indicators which are independent of the actuarial cost method.

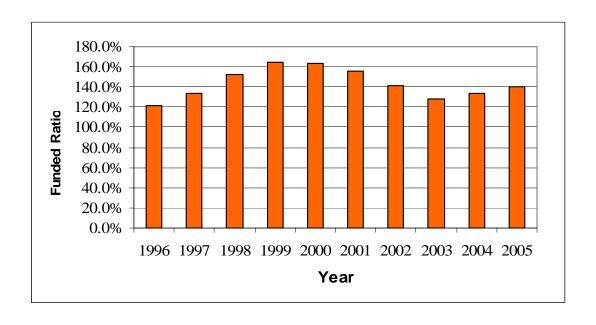
- 1. The ratio of valuation assets to the actuarial present value of credited projected benefits allocated in the proportion accrued service is to projected total service a plan continuation indicator.
- 2. The ratio of the Prefunded actuarial present value of credited projected benefits to member payroll a plan continuation indicator. In a soundly financed retirement system, the amount of the actuarial present value of credited projected benefits will be controlled and prevented from increasing in the absence of benefit improvements or strengthening of actuarial assumptions. However, in an inflationary environment it is seldom practical to impose this control on dollar amounts which are depreciating in value. The ratio is a relative index of condition where inflation is present in both items. The ratio is expected to decrease in the absence of benefit improvements or strengthening of actuarial assumptions.

Funding Progress Indicators – Historic Comparison

(\$ in Thousands)

Valuation <u>Date</u>	Valuation <u>Assets</u>	Actuarial Accrued <u>Liability</u>	Prefunded <u>AAL</u>	Funded <u>Ratio</u>	Member <u>Payroll</u>	PAAL Ratio to <u>Payroll</u>
6/30/96	\$460,073	\$377,719	\$82,354	121.8%	\$67,450	122%
6/30/97	538,055	402,367	135,688	133.7	69,287	196
6/30/98	625,121	409,175	215,946	152.8	69,793	309
6/30/99	702,481	426,538	275,943	164.7	76,382	361
6/30/00	770,649	471,207	299,442	163.5	84,717	354
6/30/01	781,831	500,586	281,245	156.2	90,177	312
6/30/02	748,762	529,805	218,957	141.3	93,086	235
6/30/03	698,885	545,687	153,198	128.1	97,349	157
6/30/04*	708,107	574,083	134,024	123.3	99,745	134
6/30/04	741,766	554,366	187,400	133.8	99,745	188
6/30/05	790,858	565,550	225,308	139.8	102,558	220

^{*} Before change in assumption



Actuarial Balance Sheet – June 30, 2005

(\$ in Thousands)

Present Resources and Expected Future Resources

A.	Actuarial value of system assets		\$790,857,722
В.	Present value of expected future contributions 1. For normal costs for present actives	\$81,744,856 (\$225,307,910	
	2. For prefunded actuarial accrued liability)	
	3. Totals		(\$143,563,054
C.	Present value of expected future member contributions ¹		\$50,438,398
D.	Total Present and Expected Future Resources		\$697,733,066
	Present Value of Expected Future Benefit Pay	ments and Reser	<u>rve</u>
A.	to retirants, beneficiaries, and DROPS		\$347,039,203
B.	To vested terminated members		\$13,263,718
C.	To present active members		

D. Total Present Value of Expected Future Benefit Payments

3. Totals

\$697,733,066

¹ Prior to any employer pick-up contributions or offset.

Calculation of PRSB Reserve Account

June 30, 2005

Amortization of Actuarial Surplus

The actuarial surplus is being amortized over a fixed 15-year period. The 15-year period is roughly equal to the 8.25% expected investment return on surplus.

Summary of Surplus Allocation

Available Surplus as of 6/30/2005 (Table 1)	\$225,307,910
Actuarial Surplus (Table 1)	168,752,929
June 30, 2005 Distributable Actuarial Surplus (Table 2)	14,724,537
Allocation of June 30, 2005 Distributable Surplus:	
2005 - 2006 Fiscal Year Member COLA Contribution Offset (Table 3)	3,303,000
2005 - 2006 Fiscal Year City COLA Contribution Offset (Table 3)	3,303,000
Additional City Allocation (Table 3)	5,412,358
PRSB Allocation (Table 3)	2,706,179
Total	14,724,537
Allocation of June 30, 2006 Distributable Surplus:	
2006 - 2007 Fiscal Year Member COLA Contribution Offset (Table 3)	3,406,000
2006 - 2007 Fiscal Year City COLA Contribution Offset (Table 3)	3,406,000
Additional City Allocation (Table 3)	5,193,016

The allocation of Distributable Actuarial Surplus is sufficient to:

- Provide for member and City COLA contribution requirement for the 2006-2007 fiscal year;
- Provide for a portion of the City's contribution requirement for the 2006-2007 fiscal year (Table 4) and;
- Provide a PRSB benefit of \$184.21 per month over the 2006 calendar year (Table 5).

Calculation of PRSB Reserve Account

June 30, 2005

Table 1: Calculation of June 30, 2005 Actuarial Surplus

1.	Actuarial Value of Assets as of 6/30/2005	\$790,857,722
2.	Actuarial Accrued Liability as of 6/30/2005	565,549,812
3.	Surplus as of $6/30/2005$: $(1) - (2)$	225,307,910
4.	Contingency Reserve: 10% x (2)	56,554,981
5.	Actuarial Surplus: (3) – (4)	168,752,929
Ta	ble 2: Determination of June 30, 2005 Distributable A and Projected June 30, 2006 Distributable Actu	-
6.	June 30, 2005 Actuarial Surplus (Table 1)	168,752,929
7.	Amortization of Balance of June 30, 2005 Actuarial Surplus:	
	a. Amortization period	15
	b. Amortization factor	0.087255
	c. Amortization of 6/30/2005 Actuarial Surplus Balance: (6) x (7b)	14,724,537
8.	Projected June 30, 2006 Surplus (1.0825 x (6) - 1.04125 x (7c)	167,343,121
9.	Amortization of Balance of June 30, 2005 Projected Actuarial Surplus:	
	a. Amortization period	15
	b. Amortization factor	0.087255
	c. Amortization of 6/30/2006 Actuarial Surplus Balance : (8) x (9b)	14,601,524

Calculation of PRSB Reserve Account

June 30, 2005

Table 3: Allocation of June 30, 2005 Distributable Actuarial Surplus

1.	June 30, 2005 Distributable Actuarial Surplus (Table 2)	\$14,724,537
2.	Expected COLA contributions for Fiscal Year 2005 - 2006 (from June 30, 2004 Actuarial Report)	
	a. City	3,303,000
	b. Members	3,303,000
	c. Total	6,606,000
3.	Net June 30, 2005 Distributable Actuarial Surplus: (1) - (2c)	8,118,537
4.	Additional City Allocation: (3) x 2/3	5,412,358
5.	PRSB Allocation: (3) - (4)	2,706,179
6.	June 30, 2006 Distributable Actuarial Surplus (Table 2)	14,601,524
7.	Expected COLA contributions for Fiscal Year 2006 – 2007 (from June 30, 2005 Actuarial Report)	
	a. City	3,406,000
	b. Members	<u>3,406,000</u>
	c. Total	6,812,000
8.	Net June 30, 2006 Distributable Actuarial Surplus: (6) - (7)	7,789,524
9.	Additional City Allocation: (8) x 2/3	5,193,016

The PRSB Allocation (along with the PRSB Reserve Account) is available to provide retirees and beneficiaries as of June 30, 2005 a monthly PRSB benefit as derived in Table 5.

The City Allocation (Items 7a and 9) along with any City Surplus Reserve is available to reduce City contributions for the 2006-2007 fiscal year. Table 4 provides the projected City contribution requirements from the June 30, 2005 actuarial valuation, net of the City Allocation.

The projected portion of Actuarial Surplus available to reduce members' COLA contributions.

(Item 7b) is sufficient to eliminate all member COLA contributions for the 2006-2007 fiscal year.

Calculation of PRSB Reserve Account

June 30, 2005

Table 4: City Contribution Requirements for Fiscal Year 2006 - 2007

		,	Fiscal Year 06-07		I	Fiscal Year 05-06	
		Basic	<u>COLA</u>	<u>Total</u>	Basic	COLA	<u>Total</u>
1.	City normal cost rate	7.39%	3.12%	10.51%	7.31%	3.11%	10.42%
2.	Projected Annual Payroll	\$109,164,710	\$109,164,710	\$109,164,710	\$104,714,350	\$104,714,350	\$104,714,350
3.	City Allocation of Fiscal Year Distributable Actuarial Surplus (Table 3)	5,193,016	3,406,000	8,599,016	5,412,358	3,303,000	8,715,358
4.	City Surplus Reserve Account (From Prior Years)	1,168,739	0	1,168,739	3,365,000	0	3,365,000
5.	Total contribution offsets available (Item 3 + Item 4)	6,361,755	3,406,000	9,767,755	8,777,358	3,303,000	12,080,358
6.	Offset contribution required (Item 1 x Item 2)	8,067,272	3,406,000	11,473,272	7,654,619	3,257,000	10,911,619
7.	Unused offset (Item 5 - Item 6, not less than 0)	0	0	0	1,122,739	46,000	1,168,739
8.	Additional offset required (Item 6 - Item 5, not less than 0) from Prepaid Contribution	1,705,517	0	1,705,517	0	0	0
9.	Prepaid Contribution	5,272,912	0	5,272,912	4,871,050	0	4,871,050
10.	City contribution requirement (Item 6 - Item 10 - Item 11, not less than 0)	0	0	0	-	-	-
11.	Estimated City Surplus Reserve Account for future years (Excess of Item 7 over Item 8)	0	0	0	0	0	1,168,739

Calculation of PRSB Reserve Account

June 30, 2005

Table 5: Calculation of PRSB for 2006 and PRSB Reserve Account

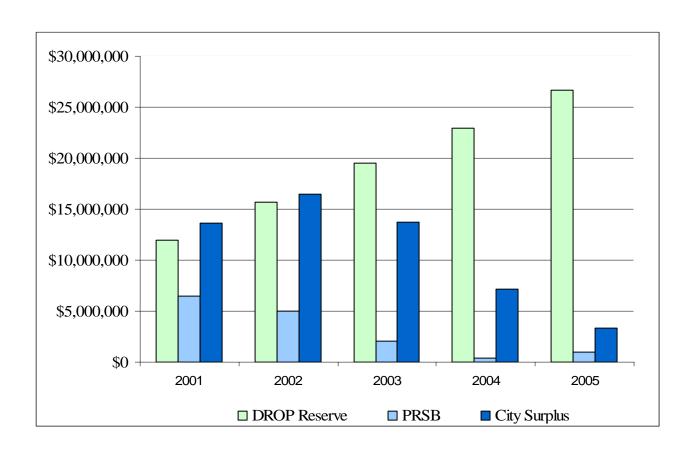
		This Year	<u>Last Year</u>
1.	PRSB Allocation of 6/30/2005 Distributable Actuarial Surplus (Table 3)	\$2,706,179	\$1,676,828
2.	PRSB Reserve Account (as of Valuation Date)	946,000	352,000
3.	Estimated 7/1/2005 to 12/31/2005 PRSB Payments	946,000	352,000
4.	Total amount available for PRSB $(1) + (2) - (3)$	2,706,179	1,676,828
5.	95% X (4)	2,570,870	1,592,987
6.	Number of eligible participants on 6/30/2005 (Retirees & Beneficiaries)	1,163	1,145
7.	Monthly PRSB Benefit (5) / (6) / 12	184.21	115.94
8.	Monthly Benefit	711.00	711.00
9.	Benefit Shortfall (8) - (7)	526.79	595.06
10.	Estimated PRSB Reserve Account as of End of Year: (4) - (6) x (7) x 12	135,309	83,841

Under section 2-1853(f)(4)(iii)(2) of the Municipal Code, we understand that the PRSB reserve shall be used to increase the PRSB benefit to the extent necessary to pay the monthly health insurance premium.

The actual, rather than projected 2006 surplus, will be used to determine the 2007 calendar year PRSB benefit.

Historical Progress of Surplus Accounts

	DROP Reserve	<u>PRSB</u>	City Surplus
6/30/2001	\$11,948,000	\$6,463,250	\$13,580,000
6/30/2002	\$15,640,731	\$5,041,003	\$16,459,017
6/30/2003	\$19,488,000	\$2,101,184	\$13,689,406
6/30/2004	\$22,947,000	\$352,000	\$7,151,000
6/30/2005	\$26,629,000	\$946,000	\$3,365,000



SUMMARY OF BENEFIT PROVISIONS

&

VALUATION DATA SUBMITTED BY RETIREMENT SYSTEM

City of Fresno Employees Retirement System **Brief Summary of Benefit Provisions Evaluated**

Effective June 30, 2005

1. Membership Requirements – First day of employment for all non-Safety employees.

2. Final Compensation for Benefit Determination

The highest average monthly compensation earnable by a member during any period of three consecutive years during his membership in the System, using the rate of pay in effect at the time of retirement.

3. Service Requirement

A. Eligibility: Age 55 (age 50 in certain layoff situations) with 5 years of service

B. Benefit Formula Per Year of Service

2% times each of the first 25 years of non-DROP service plus 1% for any years in excess of 25, multiplied by the following factor at retirement age:

<u>Age</u>	<u>Factor</u>	<u>Age</u>	<u>Factor</u>
55	1.00	61	1.14
56	1.02	62	1.18
57	1.04	63	1.22
58	1.06	64	1.26
59	1.08	65	1.30
60	1.10	66 +	Add 0.01 each quarter year

C. Deferred Retirement Option (DROP)

If eligible for service retirement, a member can elect DROP for a maximum of ten years while still working. Monthly deposits of foregone retirement allowances are made on such member's behalf based on the retirement allowance at date of DROP election.

D. <u>Maximum Benefit</u> – Not Applicable.

Brief Summary of Benefit Provisions Evaluated

Effective June 30, 2005

(Continued)

4. Ordinary or Duty Disability

- A. Eligibility Ten years of continuous service.
- B. <u>Benefit Formula</u> The greater of 1.8% of Final Compensation for each year of service or 1/3 of Final Compensation. Notwithstanding, the benefit shall not be less than any service retirement benefit eligible to be received at time of disability.

5. Pre-retirement Death Benefit

- A. <u>Eligibility</u> Less than five years of service.
- B. <u>Benefit</u> Refund of employee contributions with interest plus one month of final compensation for each year of service to a maximum of six years

or

- A1. <u>Eligibility</u> At least five years of service but ineligible for Service Retirement at death
- B1. Benefit 50% of Service Retirement Benefit based on years of service at death

or

- A2. <u>Eligibility</u> Qualified for Service Retirement.
- B2. Benefit –50% survivor benefit based on benefit due on member's date of death.

Brief Summary of Benefit Provisions Evaluated

Effective June 30, 2005

(Continued)

6. Death After Retirement

A. Service or Disability Retirement

- 50% of member's unmodified allowance

7. Withdrawal Benefits

A. Less than Five Years of Service

Refund of accumulated employee contributions with interest.

B. Five or More Years of Service

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire.

8. Post-retirement Cost-of-Living Benefits

Each July 1, benefits are increased based on increases in the local CPI, subject to a 5% maximum increase.

9. Post Retirement Supplemental Benefit (PRSB)

Depending on the level of "surplus earnings", the Retirement Board will make a determination as to what benefit can be paid to eligible PRSB recipients. Such payments will commence on January 1.

10. Employer Contributions

Determined by Projected Unit Credit cost method

11. Member Contributions

Please refer to Appendix A for entry-age based rates. The basis is to provide an average annuity at age 55 of 1/150th of Final Average Compensation for each of the first 25 years of service and 1/300th for each year of service in excess of 25.

<u>NOTE</u>: The summary of major plan provisions is designed to outline principal plan benefits. If retirement staff or the City should find the plan summary not in accordance with the actual provisions, the actuary should be IMMEDIATELY alerted so they can both be sure the proper provisions are valued.

System Assets

The following market value of assets was taken from the System's Annual Reports as of June 30, 2005 and June 30, 2004. We have not audited or verified the System financial statements.

	<u>June 30, 2005</u>	<u>June 30, 2004</u>	Percent Change
Market Value	\$872,474,218	\$812,456,930	7.39%
Actuarial Value	\$790,857,722	\$741,766,367	6.62%

The approximate rates of return on plan assets are shown below, based on the following analysis.

	Market Value	Actuarial Value
Value of Assets at 6/30/2004	\$812,456,930	\$741,766,367
Contributions:		
Employer		
Members	4,749,521	4,749,521
Benefits Paid to Participants	(27,470,328)	(26,313,266)
Administrative Expenses Paid	(733,216)	(733,216)
Total Non-Investment Cash Flow	(23,454,023)	(22,296,961)
Reduction in City Surplus		3,786,000
Investment Earnings (net of		
Investment Expenses)	83,471,311	67,602,316
Value of Assets at 6/30/2005	\$872,474,218	\$790,857,722
NET RATE OF RETURN	10.42%	9.84%
(Net of Expenses)		

Calculation of Actuarial Value of Assets

	5-Year Smoothing Plan Year Ended 6/30/05
A. Actuarial Value Beginning of Year	\$741,766,367
B. Net Market Value End of Year	872,474,218
C. Net Market Value Beginning of Year	812,456,930
D1. Non-Investment Cash Flow (Market Value) D2. Non-Investment Cash Flow (Actuarial Value)	(23,454,023) (22,296,961)
E. Investment Income E1. Market Total = B - C - D1 E2. Expected Return (8.25%) E3. Phased-in Recognition	83,471,311 60,275,976 23,195,335
F. Phased-in Recognition F1. Current Year: 20% of E3 F2. First Prior Year: 20% of 68,905,645 F3. Second Prior Year: 25% of 4,727,250 F4. Third Prior Year: 1/3 of (23,999,005) F5. Fourth Prior Year F6. Total Recognized Gain	4,639,067 13,781,129 1,181,813 (7,999,668) <u>0</u> 11,602,340
G. Preliminary Funding Value = A + D2 + E2 + F6	791,347,722
H. Excluded Assets H1. End of Year H2. Beginning of Year H3. Change = H1 - H2	30,940,000 <u>30,450,000</u> 490,000
I. Final Funding Value = G - H3	\$790,857,722

City of Fresno Employees Retirement System System Accounting Assets, Reserves and Other Liabilities

June 30, 2005

	<u>2005</u>	<u>2004</u>
Assets:		
Cash	\$1,776,233	\$2,303,156
Receivables:		
Receivables for Investments Sold	27,289,335	2,372,121
Interest and Dividends	3,316,282	4,548,869
Other Receivables	19,745,459	14,124,024
Total Receivables	50,351,076	21,045,014
Investments at Fair Value		
Short Term Investments	30,207,898	21,897,886
Domestic Equity	328,850,758	376,525,549
Corporate Bonds	104,797,673	128,376,482
International Equity	149,292,740	67,695,319
Government Bonds	145,371,616	129,316,041
Emerging Market Equity	28,406,990	26,324,574
Real Estate	81,260,711	66,562,889
Total Investments	868,188,386	816,698,740
Collateral Held for Securities Lent	148,752,747	94,657,239
Fixed Assets	31,601	
Total Assets	\$1,069,100,043	\$934,704,149
Liabilities		
Collateral Held for Securities Lent	148,752,747	94,657,239
Prepaid Employer Contributions	4,871,050	4,499,815
Payable for Investments Purchased Payable for Foreign Currency	22,802,347	7,956,924
Purchased	19,201,829	14,184,676
Other Liabilities	997,852	948,565
Total Liabilities	\$196,625,825	\$122,247,219
Total Reserves	\$872,474,218	\$812,456,930
Total Reserves and Liabilities	\$1,069,100,043	\$934,704,149

Membership Summary

In the June 30, 2005 Actuarial Valuation

	Active Members		
	June 30, 2005	June 30, 2004	Percent Change
Active			
A. Number	2061	2037	1.2%
B. Average Age	45.4	45.2	0.4%
C. Average Years of Service	9.88	9.94	(0.6)%
D. Annual Salary			
i. Total	\$91,411,031	\$88,877,515	2.9%
ii. Average	\$44,353	\$43,632	1.7%
DROP			
A. Number	225	223	0.9%
B. Average Age	59.7	59.7	0.0%
C. Average Years in DROP	3.4	3.2	6.2%
D. Annual Salary			
i. Total	\$11,146,645	\$10,867,428	2.6%
ii. Average	\$49,541	\$48,733	1.7%
Retire	ed and Inactive Mem	bers	
	June 30, 2005	June 30, 2004	Percent Change
Retired Members			
A. Service Retirement			
i. Number	814	781	4.2%
ii. Annual Allowance			
Basic Only	\$13,281,960	\$12,482,584	6.4%
COLA	\$4,729,820	\$4,769,175	(0.8)%
Total	\$18,011,780	\$17,251,758	4.4%
Average Monthly Amount	\$1,844	\$1,841	0.2%
B. Disability Retirement			
i. Number	127	121	5.0%
ii. Annual Allowance			
Basic Only	\$1,698,811	\$1,575,439	7.8%
COLA	\$590,033	\$568,180	3.8%
Total	\$2,288,844	\$2,143,619	6.8%
Average Monthly Amount	\$1,502	\$1,476	1.8%
C. Beneficiaries			
i. Number	261	259	0.8%
ii. Annual Allowance			
Basic Only	\$1,772,434	\$1,680,413	5.5%
COLA	\$1,498,674	\$1,475,007	1.6%
Total	\$3,271,108	\$3,155,419	3.7%
Average Monthly Amount	\$1,044	\$1,015	2.9%
Inactive Vested Members	l I	·	
A. Number	127	113	12.4%

Active Members

By Attained Ages and Years of Service

Age					Yea	ars of Service to	Valuation Da	te					
<u>Group</u>	<u>0-1</u>	<u>1-2</u>	<u>2-3</u>	<u>3-4</u>	<u>4-5</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	35 & Up	<u>Total</u>
15-19 NO.	1	0	0	0	0	0	0	0	0	0	0	0	1
TOT PAY	30,417	0	0	0	0	0	0	0	0	0	0	0	30,417
AVG PAY	30,417	0	0	0	0	0	0	0	0	0	0	0	30,417
20-24 NO.	13	4	2	1	1	0	0	0	0	0	0	0	21
TOT PAY	367,010	127,220	73,315	41,431	29,431	0	0	0	0	0	0	0	638,407
AVG PAY	28,232	31,805	36,657	41,431	29,431	0	0	0	0	0	0	0	30,400
25-29 NO.	28	23	22	17	10	14	0	0	0	0	0	0	114
TOT PAY	796,071	874,128	829,956	659,058	451,796	570,633	0	0	0	0	0	0	4,181,642
AVG PAY	28,431	38,006	37,725	38,768	45,180	40,759	0	0	0	0	0	0	36,681
30-34 NO.	23	25	23	14	15	59	5	0	0	0	0	0	164
TOT PAY	755,635	868,687	878,820	512,013	617,569	2,481,740	196,233	0	0	0	0	0	6,310,696
AVG PAY	32,854	34,747	38,210	36,572	41,171	42,063	39,247	0	0	0	0	0	38,480
35-39 NO.	22	19	35	19	36	85	17	9	0	0	0	0	242
TOT PAY	773,663	707,958	1,334,545	820,521	1,572,623	3,808,865	794,372	368,700	0	0	0	0	10,181,246
AVG PAY	35,167	37,261	38,130	43,185	43,684	44,810	46,728	40,967	0	0	0	0	42,071
40-44 NO.	21	19	24	19	20	95	50	63	9	0	0	0	320
TOT PAY	791,174	779,183	1,155,985	764,270	892,853	4,429,603	2,295,459	2,810,759	437,390	0	0	0	14,356,677
AVG PAY	37,675	41,010	48,166	40,225	44,643	46,627	45,909	44,615	48,599	0	0	0	44,865
45-49 NO.	22	17	32	29	26	100	59	85	41	21	1	0	433
TOT PAY	875,421	763,463	1,536,957	1,282,164	1,085,688	4,346,975	2,780,768	4,112,996	2,053,917	1,128,552	53,496	0	20,020,398
AVG PAY	39,792	44,910	48,030	44,213	41,757	43,470	47,132	48,388	50,096	53,741	53,496	0	46,236
50-54 NO.	15	7	13	17	22	94	64	66	60	59	18	0	435
TOT PAY	713,552	408,154	564,068	752,799	911,549	3,970,633	3,142,029	3,229,898	2,777,981	2,736,774	837,144	0	20,044,583
AVG PAY	47,570	58,308	43,390	44,282	41,434	42,241	49,094	48,938	46,300	46,386	46,508	0	46,080
55-59 NO.	21	9	9	19	15	43	34	46	12	21	10	0	239
TOT PAY	779,229	481,075	522,417	948,569	628,908	1,903,714	1,478,902	2,368,340	753,288	1,083,619	563,509	0	11,511,568
AVG PAY	37,106	53,453	58,046	49,925	41,927	44,272	43,497	51,486	62,774	51,601	56,351	0	48,166
60-64 NO.	1	1	5	3	4	30	16	9	4	3	1	0	77
TOT PAY	77,538	26,140	299,067	149,043	215,122	1,124,715	725,031	430,069	133,957	137,910	90,316	0	3,408,909
AVG PAY	77,538	26,140	59,813	49,681	53,780	37,490	45,314	47,785	33,489	45,970	90,316	0	44,272
65-99 NO.	0	1	1	1	3	4	1	3	1	0	0	0	15
TOT PAY	0	69,291	32,508	69,038	96,228	182,785	64,332	158,508	53,796	0	0	0	726,486
AVG PAY	0	69,291	32,508	69,038	32,076	45,696	64,332	52,836	53,796	0	0	0	48,432
TOT NO.	167	125	166	139	152	524	246	281	127	104	30	0	2,061
TOT AMT	5,959,712	5,105,300	7,227,637	5,998,907	6,501,767	22,819,663	11,477,126	3,479,270	6,210,328	5,086,855	1,544,465	0	91,411,031
AVG AMT	35,687	40,842	43,540	43,158	42,775	43,549	46,655	47,969	48,900	48,912	51,482	0	44,353

DROP Members

As of June 30, 2005

Age	Years of Participation									
Group	<u>0-1</u>	<u>1-2</u>	<u>2-3</u>	<u>3-4</u>	<u>4-5</u>	<u>5-6</u>	<u>6-7</u>	<u>7-8</u>	<u>8+</u>	Total
55 50 MO	2.5	40	20	2.4	10	0	0	0	0	1.40
55-59 NO.	36	40	30	24	12	0	0	0	0	142
AVG DEPOSIT	21,524	25,616	22,033	22,973	21,668	0	0	0	0	23,041
60-64 NO.	2	0	2	1	11	23	15	10	0	64
AVG DEPOSIT	25481	0	22,353	11,820	12,386	17,808	15,583	21,220	0	17,176
65 60 NO	0	0	0	1	5	2	5	4	0	17
65-69 NO.	0	0	0	1	5	2	5	4	0	17
AVG DEPOSIT	0	0	0	13,940	20,360	22,406	22,280	29,212	0	22,871
70-74 NO.	0	0	0	0	0	0	0	1	0	1
AVG DEPOSIT	0	0	0	0	0	0	0	11,267	0	11,267
75 NO	0	0	0	0	0	0	0		0	4
75+ NO.	0	0	0	0	0	0	0	1	0	1
AVG DEPOSIT	0	0	0	0	0	0	0	34,724	0	34,724
TOTAL	38	40	32	26	28	25	20	16	0	225
	21,732	25,616	22,053	22,197	17,788	18,176	17,258	23,440	0	21,360

Total DROP Deposits \$4,805,930 Average Age 59.7 Average DROP Service 3.4

Service Retirees

As of June 30, 2005

Age					Years of Ret	irement				
Group	0-4	<u>5-9</u>	10-14	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	30-34	35-39	<u>40+</u>	Total
50-54 NO.	1	0	0	0	0	0	0	0	0	1
AVG PAY	17,426	0	0	0	0	0	0	0	0	17,426
55-59 NO.	121	0	0	0	0	0	0	0	0	121
AVG PAY	20,991	0	0	0	0	0	0	0	0	20,991
60-64 NO.	81	56	0	0	0	0	0	0	0	137
AVG PAY	19,498	22,739	0	0	0	0	0	0	0	20,823
65-69 NO.	64	44	43	0	0	0	0	0	0	151
AVG PAY	20,511	21,585	25,874	0	0	0	0	0	0	22,351
70-74 NO.	21	45	23	37	2	0	0	0	0	128
AVG PAY	19,176	22,686	22,237	22,420	19,973	0	0	0	0	21,910
75-79 NO.	3	5	22	44	40	0	0	0	0	114
AVG PAY	28,012	20,196	22,127	23,959	23,135	0	0	0	0	23,258
80-84 NO.	0	0	7	17	50	30	2	0	0	106
AVG PAY	0	0	22,083	21,581	23,985	24,328	12,251	0	0	23,350
85-89 NO.	0	1	0	3	18	17	5	0	0	44
AVG PAY	0	15,955	0	16,336	21,514	29,423	29,324	0	0	24,978
90+ NO.	0	0	0	0	1	7	2	2	0	12
AVG PAY	0	0	0	0	17,289	16,686	13,636	17,659	0	16,390
TOT NO.	291	151	95	101	111	54	9	2	0	814
AVG AMT	20,399	22,258	23,847	22,769	23,146	24,941	22,044	17,659	0	22,127

Total Benefit \$18,011,780
Average Age 70.71
Average No. of Years Since Retirement 11.16

Disabled Retirees

As of June 30, 2005

Age					Years of Reti	rement				
Group	0-4	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	20-24	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40+</u>	Total
40-44 NO.	2	1	0	0	0	0	0	0	0	3
AVG PAY	15,270	12,528	0	0	0	0	0	0	0	14,356
11,01111	10,270	12,020	Ü	v	Ü	Ü	Ü	v	· ·	1.,555
45-49 NO.	1	5	1	0	0	0	0	0	0	7
AVG PAY	14,037	13,206	12,252	0	0	0	0	0	0	13,188
50-54 NO.	10	6	3	2	0	0	0	0	0	21
AVG PAY	14,806	15,534	14,065	10,859	0	0	0	0	0	14,532
55-59 NO.	14	12	6	2	2	0	0	0	0	36
AVG PAY	20,042	18,470	12,526	11,715	12,965	0	0	0	0	17,409
60-64 NO.	7	1	6	1	2	0	0	0	0	17
AVG PAY	19,068	30,185	15,259	10,978	11,993	0	0	0	0	17,069
65-69 NO.	2	5	2	4	1	0	1	0	0	15
AVG PAY	33,576	29,164	25,435	18,740	12,000	0	10,013	0	0	24,054
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70-74 NO.	1	2	2	2	0	4	0	0	0	11
AVG PAY	21,992	22,944	21,454	11,429	0	15,065	0	0	0	17,628
75-79 NO.	1	0	0	2	2	1	1	0	1	8
AVG PAY	31,485	0	0	27,867	21,076	15,231	13,933	0	11,042	21,197
80-84 NO.	0	0	1	0	0	2	2	2	0	7
AVG PAY	0	0	9,566	0	0	26,771	35,997	10,356	0	22,259
			- 7					-,		,
85-89 NO.	0	0	0	0	0	1	0	0	0	1
AVG PAY	0	0	0	0	0	31,167	0	0	0	31,167
90+ NO.	0	0	0	0	0	1	0	0	0	1
AVG PAY	0	0	0	0	0	20,089	0	0	0	20,089
TOT NO.	38	32	21	13	7	9	4	2	1	127
AVG AMT	19,140	19,228	15,452	16,129	14,867	20,032	23,985	10,356	11,042	18,022
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Total Benefit\$2,288,844Average Age62.11Average No. of Years Since Retirement11.67

City of Fresno Employees Retirement System **Beneficiaries and Alternate Payees**

As of June 30, 2005

Age				Y	ears of Retirem	ent					
Group	<u>0-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-24</u>	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40+</u>	*	<u>Total</u>
0-34 NO.	1	0	0	0	0	0	0	0	0	0	1
AVG PAY	453	0	0	0	0	0	0	0	0	0	453
35-39 NO.	1	0	0	0	0	0	0	0	0	0	1
AVG PAY	4,821	0	0	0	0	0	0	0	0	0	4,821
40-44 NO.	2	1	1	0	0	0	0	0	0	0	4
AVG PAY	9,423	3,218	5,690	0	0	0	0	0	0	0	6,938
45-49 NO.	3	2	0	0	0	0	0	0	0	0	5
AVG PAY	10,016	11,577	0	0	0	0	0	0	0	0	10,640
50-54 NO.	5	2	2	0	0	0	0	0	0	0	9
AVG PAY	7,102	9,936	10,014	0	0	0	0	0	0	0	8,379
55-59 NO.	11	7	5.062	0	0	0	0	0	0	0	20
AVG PAY	7,635	11,744	5,962	0	0	0	Ü	Ü	-	0	8,906
60-64 NO. AVG PAY	3 8,997	9 11,445	6 15,927	2 8,679	1 8,092	0	0	0	0	1 18,724	22 12,261
						0	•	-	-		
65-69 NO. AVG PAY	5 14,911	6 13,073	5 19,318	4 16,995	2 13,478	26,529	0	0	0	1 2,343	24 15,558
							· ·	2	-		
70-74 NO. AVG PAY	3 6,502	3 9,240	6 11,448	10 11,234	8 13,869	3 10,467	0 0	5,340	0	2 33,800	37 12,132
75-79 NO.	4	1	11,6	11,20	7	13	5	1	1	4	48
AVG PAY	11,077	10,312	26,460	15,812	11,483	13,996	11,162	7,878	5,365	17,207	13,650
80-84 NO.	1	0	0	3	18	21	6	0	0	5	54
AVG PAY	5,052	0	0	11,642	13,133	15,956	13,768	0	0	13,831	14,134
85-89 NO.	1	1	0	0	1	12	2	2	3	3	25
AVG PAY	6,800	17,218	0	0	15,539	15,057	15,141	6,129	7,450	12,311	12,882
90+ NO.	1	0	0	0	1	1	2	1	2	3	11
AVG PAY	6,079	0	0	0	10,459	15,213	11,012	17,655	4,234	6,317	8,986
TOT NO.	41	32	23	30	38	51	15	6	6	19	261
AVG AMT	8,706	11,411	14,128	13,551	12,862	15,115	12,715	8,078	6,030	14,870	12,533

Total Benefit\$3,271,108Average Age73.54Average No. of Years Since Retirement18.03

^{*} Beneficiaries with unknown dates of retirement

Retirants and Beneficiaries June 30, 2005

Tabulated by Type of Allowances Being Paid

	Monthly Allowance				
	Number	<u>Basic</u>	Cost of Living	<u>Total</u>	
Service Retirement					
Unmodified	408	\$562,785	\$183,253	\$746,037	
Option 1	280	343,246	164,875	508,121	
Option 2 & 3	<u>126</u>	200,799	46,024	246,823	
Total	814	\$1,106,830	\$394,152	\$1,500,982	
Disability Retirement					
Unmodified	75	\$84,576	\$31,921	\$116,497	
Option 1	37	37,615	13,568	51,182	
Option 2 & 3	<u>15</u>	<u>19,377</u>	<u>3,681</u>	<u>23,058</u>	
Total	127	\$141,568	\$49,169	\$190,737	
Beneficiaries	261	¢1.47.700	0104 000	Ф252 502	
Total	<u>261</u>	<u>\$147,703</u>	\$124,889	<u>\$272,592</u>	
Total	1,202	\$1,396,100	\$568,211	\$1,964,311	

ACTUARIAL COST METHODS, ACTUARIAL ASSUMPTIONS

AND

DEFINITIONS OF TECHNICAL TERMS

Actuarial Cost Methods - June 30, 2005

Normal cost and the allocation of benefit values between service rendered before and after the valuation date were determined using a projected unit credit actuarial cost method. Future, anticipated compensation increases are incorporated into this method.

<u>Financing of Prefunded Actuarial Accrued Liability</u>. Each year's actuarial gain (loss) impacts the PRSB account and the PRSB reserve. As part of this calculation, 15-year amortization is assumed. Currently, there is an excess of the actuarial value of assets over the actuarial value of liabilities which is part of a computation to derive an offset to the normal cost rate.

Active member payroll in aggregate is assumed to increase 4.25% a year for the purpose of determining the level percent contributions, although individual annual pay increase rates will increase by greater percentages per year for the purpose of projecting individual pays.

<u>Deferred Member Actuarial Accrued Liability</u>. Data provided includes date of hire, date of birth, date of termination, and last pay. Service credit, highest average salary, and deferred retirement age were estimated, based on the data provided. The estimates were used to compute the retirement benefit, upon which the liabilities are based.

Actuarial Assumptions Used for the June 30, 2005 Valuation

The contribution requirements and benefit values of the Fund are calculated by applying actuarial assumptions to the benefit provisions and member information furnished, using the actuarial cost methods described on the previous page.

The principal areas of financial risk which require assumptions about future experiences are:

- (i) long-term rates of investment return to be generated by the assets of the Fund.
- (ii) patterns of pay increases to members.
- (iii) rates of mortality among members, retirants, and beneficiaries.
- (iv) rates of withdrawal of active members (without entitlement to a retirement benefit).
- (v) rates of disability among members.
- (vi) the age patterns of actual retirements.

In making a valuation, the monetary effect of each assumption is calculated for as long as a present covered person survives -- a period of time which can be as long as a century.

Actual experience of the System will not coincide exactly with assumed experience, regardless of the choice of the assumptions, the skill of the actuary and the precision of the many calculations made. Each valuation provides a complete recalculation of assumed future experience and takes into account all past differences between assumed and actual experience. The result is a continual series of adjustments (usually small) to the computed contribution rate. From time to time it becomes appropriate to modify one or more of the assumptions, to reflect experience trends (but not random year-to-year fluctuations).

(Continued on Next Page)

Actuarial Assumptions Used for the June 30, 2005 Valuation

(Continued)

The Projected Unit Credit Actuarial Cost Method was used in conjunction with the following actuarial assumptions.

<u>The investment return rate</u> used for the actuarial valuation calculations was 8.25% a year, net of administrative expenses, compounded annually. This assumption, used to equate the value of payments due at different points in time, is adopted by the Retirement Board. The rate is comprised of two elements:

General Inflation	4.25%
Real Rate of Return	4.00%
Total	8.25%

<u>The general inflation rate</u> used for the actuarial valuation calculations was 4.25% per year, compounded annually. It represents the difference between the investment return rate and the assumed real rate of return.

The post-retirement COLA rate was 4.25% per year, compounded annually.

Inflation actually experienced, as measured by the Consumer Price Index for urban wage earners, has been as follows:

Consumer Price Index Urban Wage Earners and Clerical Workers Before 1978 All Urban Consumers After 1977 10 Year Moving Averages

June 30, 1965	1.7 %
June 30, 1975	5.4%
June 30, 1985	7.2%
June 30, 1995	3.5%
June 30, 2005	2.5%

50-Year Average 4.1%

Actuarial Assumptions Used for the June 30, 2005 Valuation

(Continued)

<u>Compensation increase rates</u> used to project current pays to those, upon which a benefit will be based, are represented by the following table.

Annual Rate of Compensation Increase

General Inflation	4.25%
plus	
Merit & Longevity See Table Below.	Based on completed years of service.

Years of Service

Tears of Bervice	
0	7.75%
1	5.75%
2	4.75%
3	3.45%
4	2.85%
5	1.85%
6	0.85%
7	0.65%
8	0.45%
9+	0.05%

Actuarial Assumptions Used for the June 30, 2005 Valuation

(Continued)

Rates of separation from active membership and withdrawing employee contributions are shown below (rates do not include separation on account of retirement or death). This assumption measures the probabilities of members remaining in employment.

% of Active Members
Separating Within Next Year and Withdrawing Employee Monies

Sample	Under 5 Ye	ears (median)	5-9 Years	of Service	10+Years	of Service
<u>Ages</u>	Men	Women	<u>Men</u>	Women	Men	Women
20	6%	7.2%	3.0%	7.5%	3.0%	5.0%
25	6%	7.2%	3.0%	7.5%	3.0%	5.0%
30	6%	7.2%	3.0%	7.5%	3.0%	5.0%
35	6%	7.2%	2.13%	4.5%	1.9%	2.5%
40	6%	7.2%	1.98%	3.0%	1.4%	1.0%
45	6%	7.2%	1.80%	3.0%	0.95%	0.75%
50	6%	7.2%	1.45%	1.5%	0.75%	0.75%
55	6%	7.2%	1.20%	0.75%	0%	0%
60	0%	0%	0.95%	0.15%	0%	0%

% of Active Members

Separating Due to the Following Causes

Sample	Vested T	<u>ermination</u>	Ordinary	Disability	Ordina	ry Death
<u>Ages</u>	<u>Men</u>	Women	<u>Men</u>	Women	<u>Men</u>	Women
20	0%	0%	0%	0%	.04%	.03%
25	0%	0%	0%	0%	.05%	.03%
30	1.0%	2.25%	.01%	.01%	.07%	.04%
35	1.0%	2.25%	.05%	.05%	.07%	.05%
40	1.4%	2.25%	.50%	.50%	.09%	.08%
45	2.0%	2.0%	.75%	.75%	.13%	.10%
50	1.5%	2.0%	.85%	.85%	.21%	.15%
55	1.4%	1.8%	.85%	.85%	.36%	.25%
60	0%	0%	0%	0%	.65%	.48%

Actuarial Assumptions Used for the June 30, 2005 Valuation

(Continued)

<u>The post-retirement mortality table</u> used were the 1994 Group Annuity Mortality Basic Tables (Uninsured Pensioners), for men and one-year setback of the Female table for women.

This assumption is used to measure the probabilities of members dying after retirement and the probabilities of each benefit payment being made after retirement. The 1984 Disabled Life Mortality Table is used for disabilitants, with three-year setback. Related values are shown below.

Future Life Expectancy (Years)			% Dying Within Next Year		
	Non-dis	sabled Retirees	Non-di	isabled Retirees	
Sample					
<u>Ages</u>	<u>Men</u>	<u>Women</u>	<u>Men</u>	Women	
55	25.5	30.5	.48	.22	
60	21.2	25.9	.86	.42	
65	17.3	21.6	1.56	.82	
70	13.8	17.6	2.55	1.37	
75	10.7	13.9	4.00	2.19	

Sample Ages	Future Life Expectancy (Years) <u>Disabled Retirees</u>	% Dying Within Next Year <u>Disabled Retirees</u>
45	25.2	1.88
50	22.6	2.22
55	20.2	2.59
60	17.8	3.03
65	15.5	3.48
70	13.2	4.00
75	10.8	4.72

City of Fresno Employees Retirement System **Actuarial Assumptions Used for the June 30, 2005 Valuation**

(Continued)

The rates of retirement used to measure the probability of eligible members retiring during the next year.

Retirement		
<u>Ages</u>	<u>Male</u>	<u>Female</u>
55	12.27%	13.0%
56	6.32%	7.0%
57	7.37%	3.5%
58	7.70%	3.8%
59	7.88%	8.0%
60	7.91%	10.0%
61	9.38%	13.5%
62	13.50%	22.0%
63	9.75%	12.0%
64	9.75%	12.0%
65	18.71%	30.0%
66	20.57%	15.0%
67	30.01%	12.5%
68	38.21%	22.5%
69	45.86%	26.0%
70	100%	100%

DROP Assumption:

First Year Eligible:	45%
Second Year Eligible:	15%
Third Year Eligible:	10%
Fourth Year Eligible:	10%
Thereafter	none

Members are assumed to remain in DROP 4 years.

For current deferred vested members, we assume that benefits will commence at the later of age 55 or current attained age. We assume that none of the deferred vested members are reciprocal.

City of Fresno Employees Retirement System **Actuarial Assumptions Used for the June 30, 2005 Valuation**

(Continued)

<u>Survivor Benefits</u>. Marital status and spouses' census data were imputed with respect to active and deferred members.

<u>Marital Status</u> – 80% of male and 60% of female members are assumed to be married at retirement. <u>Spouse Census</u> – Female spouses are assumed to be 4 years younger than their spouse.

COLA Assumptions - 4.25% per annum.

Comparison of Selected Actuarial Assumptions To Actual Experience

(Continued)

The salary increase assumptions project annual increases in total member payroll of 4.25%, the inflation portion of the individual pay increase assumptions. In effect, this assumes no change in the number of active members. Changes actually experienced in areas related to these assumptions have been as follows:

	Year Ended			3-year	4-year	
	6/30/05	6/30/04	6/30/03	6/30/02	Average	<u>Average</u>
Inflation ¹	2.5%	3.3%	2.1%	1.1%	2.6%	2.2%
Assumed					4.25^2	4.25^2
_						
Average Pay Increase ⁵	1.7	2.1	1.3	2.5	1.7	1.9
Assumed					4.25^2	4.25^2
Merit & Longevity Increase	(0.8)	(1.2)	(0.8)	1.4	(0.9)	(0.3)
Assumed					0.5	0.5
Total Payroll	2.8	2.5	4.6	3.2	3.3	3.3
Assumed					4.25^2	4.25^2
Investment Return Rate ⁴	9.8	3.3	(4.2)	(1.6)	2.8	1.7
Assumed					8.25	8.25
Real Rate of Investment Return ⁴	7.3	0.0	(6.3)	(2.7)	0.2	(0.5)
Assumed					4.0^{3}	4.0^{3}

¹ Based on Consumer Price Index for All Urban Consumers.

² Reduced from 4.5% for 2004 valuation and after.

³ Increased from 3.75% for 2004 valuation and after.

⁴ Based on actuarial value of assets <u>NOT</u> market value or book value.

⁵ Only non-DROP actives considered.

Definitions of Technical Terms

<u>Actuarial Accrued Liability</u>. The difference between the actuarial present value of system benefits and the actuarial value of future normal costs. Also referred to as "accrued liability" or "actuarial liability".

<u>Actuarial Assumptions</u>. Estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and salary increases. Actuarial assumptions (rates of mortality, disability, turnover and retirement) are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (salary increases and investment income) consist of an underlying rate in an inflation-free environment plus a provision for a long-term average rate of inflation.

<u>Accrued Service</u>. Service credited under the System which was rendered before the date of the actuarial valuation.

<u>Actuarial Equivalent</u>. A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

<u>Actuarial Cost Method</u>. A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of retirement system benefits between future normal cost and actuarial accrued liability. Sometimes referred to as the "actuarial funding method".

<u>Actuarial Gain (Loss)</u>. The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

<u>Actuarial Present Value</u>. The amount of funds currently required to provide a payment or series of payments in the future. It is determined by discounting future payments at predetermined rates of interest, and by probabilities of payment.

<u>Amortization</u>. Paying off an interest-discounted amount with periodic payments of interest and principal -- as opposed to paying off with lump sum payment.

<u>Normal Cost</u>. The actuarial present value of retirement system benefits allocated to the current year by the actuarial cost method.

<u>Prefunded Actuarial Accrued Liability</u>. The excess of valuation assets over actuarial accrued liability.

DISCLOSURES REQUIRED BY STATEMENTS NO. 25 AND 27 OF THE GOVERNMENTAL ACCOUNTING STANDARDS BOARD

GASB No. 25 Disclosure Schedule of Funding Progress Retirement Benefits

(\$ in Thousands)

		Actuarial				PAAL
Valuation <u>Date</u>	Valuation <u>Assets</u>	Accrued <u>Liability</u>	Prefunded <u>AAL</u>	Funded <u>Ratio</u>	Member <u>Payroll</u>	Ratio to <u>Payroll</u>
6/30/96	\$460,073	\$377,719	\$82,354	121.8%	\$67,450	122%
6/30/97	538,055	402,367	135,688	133.7	69,287	196
6/30/98	625,121	409,175	215,946	152.8	69,793	309
6/30/99	702,481	426,538	275,943	164.7	76,382	361
6/30/00	770,649	471,207	299,442	163.5	84,717	354
6/30/01	781,831	500,586	281,245	156.2	90,177	312
6/30/02	748,762	529,805	218,957	141.3	93,086	235
6/30/03	698,885	545,687	153,198	128.1	97,349	157
6/30/04	741,766	554,366	187,400	133.8	99,745	188
6/30/05	790,858	565,550	225,308	139.8	102,558	220

GASB No. 25 Disclosure Schedule of Employer Contributions Retirement Benefits

Year Ended June 30	Actuarially Required Contributions (ARC)	Contributions <u>Made</u>
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0^1	0
2004	0^1	0
2005	0^1	0

¹ May vary depending on City's expensing policy

Solvency Test for Retirement Benefits

For Years Ended June 30

(In Thousands)

Aggregate Accrued Liabilities For (1) (2) (3) Actuarial Active Retirees* **Active Members** Value of Portion of Accrued Liabilities Valuation Member and (Employer Covered by Reported Assets **Assets** Contributions Beneficiaries Financed Portion) (1) (2) (3) Date 88,322 360,303 790,858 100% 100% 100% 116,925 6/30/2005 6/30/2004 87,756 352,680 113,930 741,766 100% 100% 100% 6/30/2003 87,876 334,590 123,221 698,885 100% 100% 100% 6/30/2002 85,532 324,254 120,019 748,762 100% 100% 100% 6/30/2001 84,217 300,562 115,707 781,831 100% 100% 100% 6/30/2000 82,588 280,005 108,614 770,649 100% 100% 100% 6/30/1999 85,630 259,886 81,022 702,481 100% 100% 100% 86,852 6/30/1998 81,736 240,587 625,121 100% 100% 100% 6/30/1997 88,020 210,441 103,906 538,055 100% 100% 100% 6/30/1996 195,619 100,764 460,073 100% 100% 81,336 100% 6/30/1994 69,292 185,946 103,164 371,158 100% 100% 100% 6/30/1992 57,006 158,809 105,013 100% 269,203 100% 50.84%

^{*} Includes deferred vested members

APPENDIX A: MEMBER CONTRIBUTION RATES

Member Contribution Rates

Entry Age	<u>Basic</u>	<u>Cola</u>	Surplus Offset	<u>Total</u>
16	2.53%	1.44%	-1.44%	2.53%
17	2.62%	1.49%	-1.49%	2.62%
18	2.71%	1.54%	-1.54%	2.71%
19	2.80%	1.59%	-1.59%	2.80%
20	2.90%	1.64%	-1.64%	2.90%
21	3.01%	1.71%	-1.71%	3.01%
22	3.11%	1.76%	-1.76%	3.11%
23	3.23%	1.83%	-1.83%	3.23%
24	3.35%	1.90%	-1.90%	3.35%
25	3.48%	1.97%	-1.97%	3.48%
26	3.61%	2.05%	-2.05%	3.61%
27	3.76%	2.13%	-2.13%	3.76%
28	3.91%	2.22%	-2.22%	3.91%
29	4.07%	2.31%	-2.31%	4.07%
30	4.25%	2.41%	-2.41%	4.25%
31	4.35%	2.47%	-2.47%	4.35%
32	4.44%	2.52%	-2.52%	4.44%
33	4.55%	2.58%	-2.58%	4.55%
34	4.65%	2.64%	-2.64%	4.65%
35	4.75%	2.69%	-2.69%	4.75%
36	4.86%	2.76%	-2.76%	4.86%
37	4.98%	2.82%	-2.82%	4.98%
38	5.09%	2.89%	-2.89%	5.09%
39	5.21%	2.96%	-2.96%	5.21%
40	5.33%	3.02%	-3.02%	5.33%
41	5.46%	3.10%	-3.10%	5.46%
42	5.59%	3.17%	-3.17%	5.59%
43	5.73%	3.25%	-3.25%	5.73%
44	5.88%	3.34%	-3.34%	5.88%
45	6.00%	3.41%	-3.41%	6.00%
46	6.13%	3.48%	-3.48%	6.13%
47	6.25%	3.55%	-3.55%	6.25%
48	6.38%	3.62%	-3.62%	6.38%
49	6.50%	3.69%	-3.69%	6.50%
50	6.62%	3.76%	-3.76%	6.62%
51	6.75%	3.83%	-3.83%	6.75%
52	6.87%	3.90%	-3.90%	6.87%
53	7.00%	3.97%	-3.97%	7.00%
54 +	7.12%	4.04%	-4.04%	7.12%